

**The Michigan Substance Abuse Risk
and Protective Factors
2000/2001 Student Survey:
Northern Region Results**

*Michigan Department
of Community Health*



*John Engler, Governor
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THE MICHIGAN SUBSTANCE ABUSE RISK AND PROTECTIVE FACTORS 2000/2001 STUDENT SURVEY: NORTHERN REGION RESULTS

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1. INTRODUCTION AND METHODOLOGY

In order to estimate the number and characteristics of middle and high school students in Michigan who are at elevated risk of alcohol, tobacco, and other drug use and related problems, or who are already substance users, the Michigan Department of Community Health (MDCH), Division of Mental Health Quality and Planning (DMHQP), with assistance from Research Triangle Institute (RTI), conducted the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey. This survey was funded by the Center for Substance Abuse Prevention (CSAP) as part of Michigan's Prevention Needs Assessment Project.

During the 2000 - 2001 school year, school staff administered the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey to over 9,000 students in grades 6, 8, 10, and 12, in 73 schools across Michigan.

To present the data and information from this study in a meaningful manner, we prepared an individual report for each of the seven regions in Michigan. Because of the small number of private school students participating in the survey, each regional report focuses on the findings from data collected from public school students. This report presents the results of the public school survey in the Northern region and is divided into four chapters. The remaining sections of this chapter provide information on study methodology and response rates. The second chapter provides prevalence estimates of Northern region public school students' use of tobacco, alcohol, and other drugs, as well as estimates of delinquent behavior. It should be noted that where estimates are compared in this report, no formal statistical analyses have been conducted. Chapter 3 provides findings about community, school, family, and peer-individual risk factors associated with students' substance use, and Chapter 4 summarizes the key study findings. In addition, the instrument and data collection materials are provided in the appendix.

1.1 Methodology

The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey was adapted from the Student Survey of Risk and Protective Factors and Prevalence of Alcohol, Tobacco, and other Drug Use, developed by the Social Development Research Group (SDRG) at the University of Washington and used in many other states. The survey was printed on an electronically scannable form. To protect student privacy, the questionnaire was anonymous. It is therefore impossible to identify an individual student's responses. District and school recruitment was conducted by staff of MDCH. Participation by schools and students was completely voluntary. Parental consent was obtained prior to survey administration by using either active or passive consent procedures. Participating schools were provided all the necessary materials for administering the survey. A designated survey coordinator at each school distributed and collected survey materials and sent the completed surveys back to RTI via Federal Express. A thank you letter was sent by MDCH to participating school superintendents,

principals, and teachers expressing appreciation to all involved in the survey. The letter provided instructions on how to receive the incentive for participating.

Because this research effort involved data collection directly from minors, it involved review of the study design and all school and parental consent forms and procedures by the MDCH Human Subjects committee. Approval was granted as required before data collection began.

1.2 Response Rates

The following information is for the **Northern region** and is based on the surveys completed by participating students in grades 6, 8, 10, and 12. **Exhibit 1.1** displays the planning regions in the state. **Exhibit 1.2** shows that 11 schools were sampled from the Northern region and all 11 schools were eligible to participate. Schools were eligible if they included a 6th, 8th, 10th, and/or 12th grade. Of the 11 eligible schools, 9 participated in the survey for an overall school response rate of 82 percent. The school response rate in the Northern region was substantially higher than the statewide public school response rate of 69 percent. Within the 9 participating Northern region public schools, 13 6th grade, 11 8th grade, 10 10th grade, and 7 12th grade classes completed the survey.

A total of 1,514 students Northern region public school students were sampled, but 141 of these students were ineligible to participate because they were not in the 6th, 8th, 10th, or 12th grade (**Exhibit 1.2**). In addition, 52 eligible students did not participate because their parents/guardians objected to their participation, 72 students refused to participate, and 130 were absent on the day of survey administration. Of the completed surveys, 59 were unusable due to careless, invalid, or logically inconsistent responses. As a result, there were 1,060 valid surveys, including 410 6th grade surveys, 315 8th grade surveys, 195 10th grade surveys, and 140 12th grade surveys. The overall student response rate for the Northern region was 77 percent. The student response rate in the Northern region was similar to the statewide public school student response rate of 78 percent.

Taking into consideration both the school and student response rates [school response rate*student response rate/100], **Exhibit 1.2** shows the overall response rate for the Northern region was 63 percent. The overall response rate for public schools in the Northern region was higher than the overall statewide public school response rate of 54 percent.

1.3 Using the Survey Results

Results from the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey provide important information that can be used to help detect current patterns of risk factors among students. It can help you:

- ! identify differences by grade and gender,

Exhibit 1.1 Michigan Department of Community Health Substance Abuse Planning Regions by County

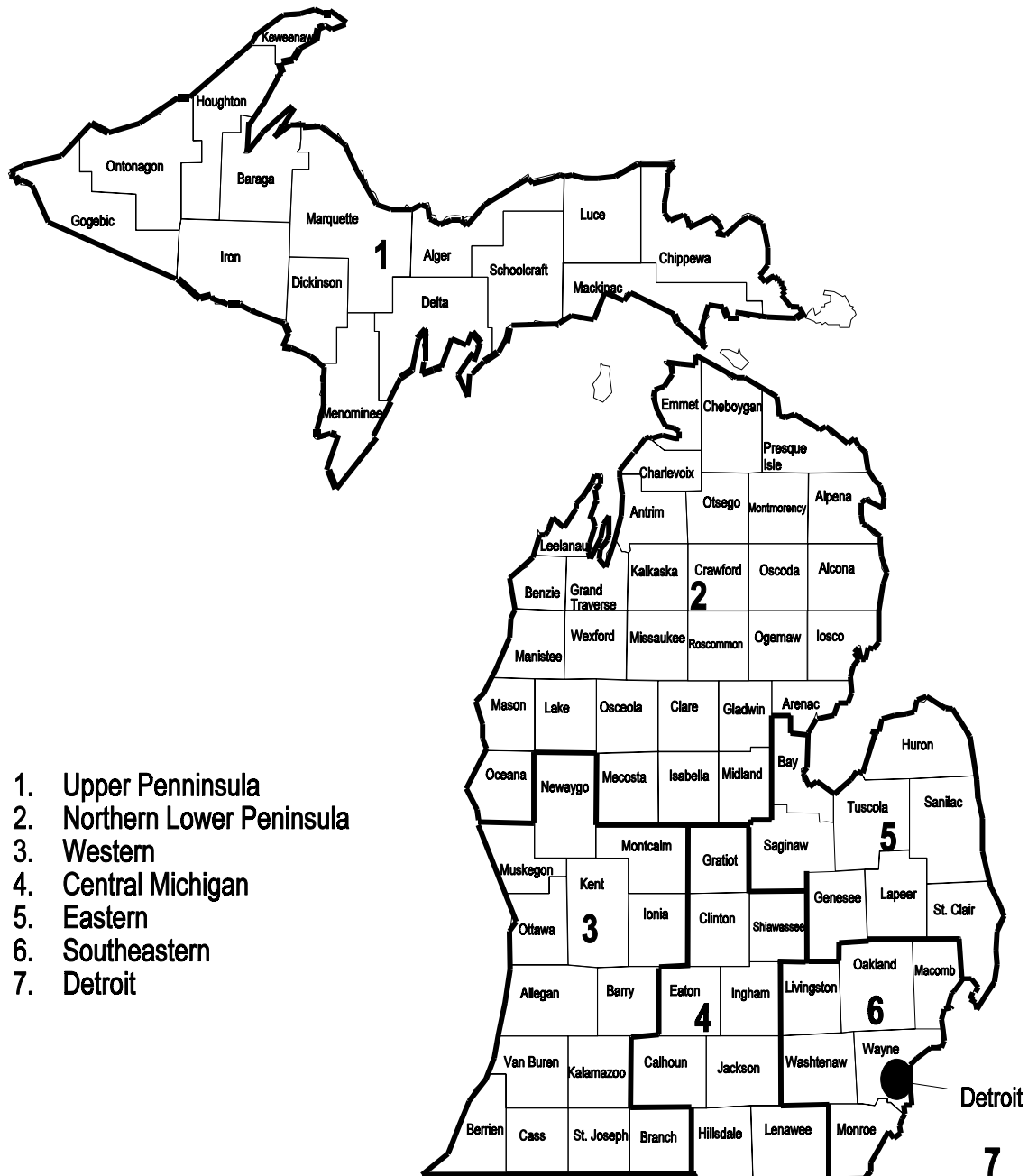


Exhibit 1.2 School and Student Response Rates for Public Schools in the Northern Region

	Northern Region	Statewide
School:		
# Schools Sampled	11	95
# Schools Eligible	11	84
# Schools Participating	9	58
Response Rate¹	82%	69%
Classes:		
# 6 th Grades Participating	13	78
# 8 th Grades Participating	11	128
# 10 th Grades Participating	10	104
# 12 th Grades Participating	7	77
Student:		
# Students Sampled	1,514	11,822
# Students Eligible ²	1,373	11,442
# Parental Refusals	52	284
# Student Refusals	72	302
# Absent	130	1558
# Discarded Surveys ³	59	386
# Valid Surveys	1,060	8,912
# 6 th Grade Surveys	410	1,729
# 8 th Grade Surveys	315	2,578
# 10 th Grade Surveys	195	2,548
# 12 th Grade Surveys	140	2,057
Response Rate⁴	77%	78%
Overall:		
Response Rate⁵	63%	54%

¹ School response rate is calculated by dividing the number of participating schools by the number of eligible schools.

² Students in grades 7, 9, and 11 who completed the survey were ineligible for the survey and are therefore excluded from analysis and response rate calculations.

³ Includes surveys in which responses were deemed dishonest or unreliable.

⁴ Student response rate is calculated by dividing the number of valid surveys by the number of eligible students.

⁵ The overall response rate is calculated by multiplying the school and student response rates.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

- ! target prevention efforts to specific groups of students, and
- ! suggest whether or not policies and programs are having their intended effect on student behaviors.

The results can be used as a tool for starting discussions, educating the community, and planning and evaluating programs.

- ! **Starting the Conversation:** Use the survey findings to begin a conversation with young people about the personal choices they make or about the health of their community. Ask them if the results accurately reflect what they see happening around them. How do they explain the results? What ideas do they have about ways to promote healthy behaviors? From their perspective, what seems to be working and what is not working?
- ! **Increasing Awareness:** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey provides an opportunity to break through “denial” about some students’ participation in risky behaviors, and to make community members aware of the risks that their young people face. It can also dispel myths and correct misinformation about the average teen. The survey can be used to accentuate the positive and to celebrate the fact that many students are abstaining from behaviors which endanger their health and their ability to succeed.
- ! **Planning and Evaluating Programs:** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey can serve as the basis of a regional needs assessment. It can help identify both strengths and areas for improvement in your region. It can even suggest strategies to address those challenges.

1.4 Limitations of the Survey

While the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey represents the most complete and most recent information available about risk behaviors among students in your region, like all surveys it has some limitations that you should keep in mind when interpreting the results.

- ! **Sampling and Data Quality:** This report is based on all the students who completed the survey in the Northern region. Some students were absent on the day the survey was administered, and other students declined to participate or incorrectly completed the survey. It is likely that the results are representative of the student population in your region, but we cannot be sure. To minimize the chances of poor data quality, several precautions were taken to ensure the reliability and validity of the results. First, the questionnaire has been carefully designed and thoroughly tested by SDRG. Second, the survey was anonymous to encourage students to be honest and forthright. Third, several consistency checks were run on the data to exclude careless, invalid, or logically inconsistent answers. These precautions can reduce most, but not all, sources of error.

- ! **What, not Why:** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey can indicate what students are doing. It also can suggest the groups of students who are more likely to engage in these behaviors, which can aid in designing prevention programs targeted at the students most at risk. However, the survey does not address another important piece of the puzzle: *Why* are students engaging in these behaviors? That question is beyond the scope of this report.

1.5 Understanding this Report

The results of the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey are presented as data Exhibits. All results are expressed as percentages of students who made the responses being reported. Some percentages may not sum to 100 percent due to rounding.

Please note that we encourage you to examine not only the areas for improvement identified in this survey, but also the regional strengths that are revealed. That is, in most cases the majority of adolescents are NOT engaging in risky behaviors. Although most of the Exhibits are oriented to examining the prevalence of risk behaviors, please do not forget about the percent of adolescents in the Northern region who are NOT engaging in the behavior.

2. PREVALENCE OF SUBSTANCE USE AND DELINQUENT BEHAVIOR AMONG MICHIGAN PUBLIC SCHOOL STUDENTS IN THE NORTHERN REGION

This chapter presents information about the use of tobacco, alcohol, and other drugs (ATOD) and participation in delinquent behavior among 6th, 8th, 10th, and 12th grade public school students in the Northern region of Michigan. To determine the characteristics of students who engage in these behaviors, this chapter presents prevalence estimates separately by students' gender, race/ethnicity, and grade in school whenever the data permit. The available demographic information may be useful in helping to identify groups for targeted prevention efforts. It should be noted that for some demographic subgroups, either the number of students in the Northern region was too small or the prevalence of some behaviors was too low to obtain a reliable estimate. In addition to presenting information about the Northern region, where possible results from the region are compared to the state average to indicate areas that may be of special concern. As noted in Chapter 1, comparisons in this report refer to apparent differences only, and no statistical calculations have been performed.

2.1 Tobacco

2.1.1 Lifetime Tobacco Use

As shown in **Exhibit 2.1**, 51 percent of Michigan public school students in the Northern region had ever used tobacco (i.e., either cigarettes or smokeless tobacco). Some differences in lifetime tobacco use based on demographic characteristics were observed. Specifically, use was higher among males than females (53% vs. 48%). Caucasian students (51%) had used tobacco less than students of non-Caucasian, non-African-American races/ethnicities (61%). In addition, higher grade levels were associated with an increased prevalence of tobacco use. The highest prevalence rate (81%) occurred for students in 12th grade; use was intermediate among 10th graders (65%) and 8th graders (42%), and lowest among 6th graders (19%). Although the prevalence for 6th graders was lower than for other grades, it is important to note that nearly one in five students in this early grade had used tobacco in their lifetime.

The overall level of lifetime tobacco use in the Northern region was higher than the statewide average of 41 percent. Unlike students in the Northern region, however, in the state as a whole females and males reported an approximately equal prevalence of lifetime tobacco use. Another difference between the Northern region and the state occurred for race/ethnicity; statewide, Caucasian students were more likely than non-Caucasian, non-African-American students to have used tobacco. The finding of a grade-related increase in tobacco use also

Exhibit 2.1 Prevalence of Tobacco Use in the Lifetime and Past Month Among Public School Students in the Northern Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	51.0	41.4	23.4	19.2
Gender				
Male	53.3	41.2	24.3	19.7
Female	48.1	41.9	22.1	18.9
Race/Ethnicity				
Caucasian	50.5	43.4	23.1	21.4
African-American	+	35.5	+	9.8
Other races ¹	60.7	34.2	+	15.5
Grade in School				
6 th	18.5	12.6	+	2.3
8 th	41.9	38.0	18.3	14.0
10 th	64.3	54.6	28.0	27.6
12 th	80.6	65.1	44.6	36.5

+ Estimate suppressed because of low precision.

¹ Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

applied to the state as a whole, although state prevalence rates were lower than those in the Northern region.

2.1.2 Past-Month Tobacco Use

Approximately 23 percent of students in the Northern region had used tobacco in the 30 days prior to the survey (i.e., they were current tobacco users) (**Exhibit 2.1**). No large differences between females and males were found. Past month tobacco use increased with grade (18% for 8th grade, 28% for 10th grade, and 45% for 12th grade).

The prevalence of past month tobacco use in the Northern region was somewhat higher than the statewide average of 19 percent. Where comparisons among demographic groups were possible, current tobacco use among groups in the Northern region generally was higher than in those across the state.

2.2 Alcohol

2.2.1 Lifetime Alcohol Use

To assess lifetime alcohol use, students were asked whether they had ever had a drink of alcohol in their life, beyond just a few sips. **Exhibit 2.2** shows that just over six in ten students in the Northern region reported lifetime use of alcohol. An examination of demographic differences in the Northern region showed that males were slightly more likely than females (62% vs. 60%) ever to have used alcohol. Comparing lifetime alcohol use among students in different grades, we found notable increases in lifetime alcohol use with each grade in school. Prevalence increased from 23 percent among 6th graders to 55 percent among 8th graders, 77 percent among 10th graders, and 90 percent among 12th graders.

The prevalence of lifetime alcohol use by students in the Northern region is somewhat higher than in those in the state as a whole (61% and 54%, respectively). Comparisons of different demographic groups show that in these subgroups the prevalence of lifetime alcohol use in the Northern region is consistently higher than that in the state as a whole. Particularly large differences between the Northern region and the state were noted for males (62% Northern region vs. 55% state) non-Caucasian, non-African-American students (61% Northern region vs. 46% state) and 12th graders (90% Northern region vs. 81% state).

2.2.2 Past-Month Alcohol Use

As shown in **Exhibit 2.2**, 35 percent of public school students in the Northern region had consumed at least one drink in the month prior to the 2000/2001 survey (i.e., currently used alcohol). Males were more likely than females to have used alcohol in the past

Exhibit 2.2 Prevalence of Alcohol Use in the Lifetime and Past Month Among Public School Students in the Northern Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	61.0	54.4	35.4	31.0
Gender				
Male	62.2	54.6	37.7	31.3
Female	60.0	54.4	33.1	30.7
Race/Ethnicity				
Caucasian	61.2	57.4	35.8	33.9
African-American	+	45.8	+	20.6
Other races ¹	61.2	46.3	+	24.5
Grade in School				
6 th	23.4	19.3	8.9	5.7
8 th	54.6	50.6	27.9	25.0
10 th	76.7	71.5	44.0	43.6
12 th	89.8	80.9	62.0	54.1

+ Estimate suppressed because of low precision.

¹ Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

month (38% compared to 33%). As was the case with lifetime alcohol use, rates for current use also increased with students' grade in school. The prevalence of current alcohol use ranged from 9 percent for 6th graders to 62 percent for 12th graders.

When compared to the state as a whole, the overall prevalence of past month alcohol use by students in the Northern region was somewhat higher (35% and 31%, respectively). This difference also applied to almost all of the demographic subgroups. Specifically, use by students in the Northern region was notably higher than in the state for males (38% vs. 31%) and 12th graders (62% vs. 54%).

2.3 Other Drugs

2.3.1 Lifetime Other Drug Use

Illicit drug use was less prevalent than alcohol or tobacco use among Northern region's public school students. Approximately 37 percent of students in the Northern region reported having used at least one illicit drug in their lifetime (**Exhibit 2.3**). Males were more likely to have used illicit drugs than were females (40% of males, 33% of females). As with lifetime alcohol and tobacco use, prevalence rates for lifetime illicit drug use increased with students' grade in school. There were large differences between 6th graders (13%), 8th graders (26%), 10th graders (48%), and 12th graders (63%).

The prevalence of illicit drug use in the Northern region was somewhat higher than the state average of 33 percent. This pattern also was true for most demographic subgroups. Specifically, rates were higher in the Northern region than in the state for males (40% vs. 35%) and 12th graders (63% vs. 52%). In contrast, 8th graders showed the opposite pattern; rates were somewhat lower in the Northern region (26%) than in the state (30%).

We also examined what types of illicit drugs were being used by Michigan's public school students (**Exhibit 2.4**). The most frequently used illicit drug in the Northern region was marijuana (29%), followed by inhalants (15%), speed or amphetamines (7%), LSD or other psychedelics (6%), and cocaine (4%). These prevalence rates are somewhat higher than those reported across the state.

2.3.2 Past-Month Other Drug Use

Approximately 19 percent of students in the Northern region reported using an illicit drug in the 30 days prior to the survey (**Exhibit 2.3**). More males (22%) than females (16%) reported past month illicit drug use. Although the estimate for 6th graders was unreliable, use was less common among 8th graders (15%) than 10th graders (26%) or 12th graders (29%).

Exhibit 2.3 Prevalence of Illicit Drug Use in the Lifetime and Past Month Among Public School Students in the Northern Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	37.0	33.3	19.0	17.2
Gender				
Male	40.3	35.2	22.1	18.6
Female	33.3	31.7	16.0	16.0
Race/Ethnicity				
Caucasian	36.7	34.1	18.4	17.8
African-American	+	32.2	+	15.4
Other races ¹	+	29.5	+	15.9
Grade in School				
6 th	12.5	10.8	+	3.2
8 th	25.6	30.2	15.2	15.5
10 th	47.6	42.7	25.7	24.7
12 th	62.5	51.7	29.3	26.1

+ Estimate suppressed because of low precision.

¹Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Note: Illicit Drug Use includes use of marijuana, inhalants, cocaine, LSD or other psychedelics, speed or amphetamines, or other illegal drugs.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 2.4 Prevalence of Specific Types of Illicit Drug Use in the Lifetime and Past Month Among Public School Students in the Northern Region and the State: 2000/2001

Substance Used	Lifetime		Past Month	
	Region	State	Region	State
Marijuana	28.6	24.0	13.3	12.6
Inhalants	15.3	13.6	4.7	3.9
Cocaine	4.1	3.3	+	1.1
LSD or Other Psychedelics	5.7	5.0	+	2.4
Speed or Amphetamines	6.6	4.9	+	1.7
Heroin	+	0.9	+	+
Tranquilizers	+	4.7	+	2.0
Barbiturates	+	2.7	+	1.2
Designer drugs¹	+	5.0	+	1.8
Steroids	+	1.4	+	+

+ Estimate suppressed because of low precision.

¹Includes GHB, ecstasy (X), or Ketamine (Special K).

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey

The overall prevalence of past month illicit drug use by students in the Northern region was slightly higher than that of students in the state (19% vs. 17%). Differences between demographic subgroups at the regional and state levels were generally small in magnitude, ranging from 0 percent to 3 percent.

Marijuana and inhalants were the only substances for which reliable regional estimates of past month use were obtained. Approximately 13 percent of students in the Northern region reported past month marijuana use and 5 percent reported inhalant use. The figures are consistent with the state averages.

2.4 Combinations of Substances Used

In addition to investigating individual substances used, we examined the prevalence of multiple substance use. **Exhibit 2.5** shows combination drug use for lifetime and past month. Please note that when referring to the “lifetime” columns the rows refer to lifetime use, and when referring to the “past month” columns the rows refer to past month use.

Exhibit 2.5 Combinations of Substances Used in the Lifetime and Past Month Among Michigan Public School Students in the Northern Region: 2000/2001

	Lifetime Use				Past Month Use			
	Cigarettes	Alcohol	Marijuana	Other Illicit Drugs	Cigarettes	Alcohol	Marijuana	Other Illicit Drugs ¹
Cigarettes	100.0	91.8	53.1	39.8	100.0	80.8	44.4	33.2
Alcohol	74.4	100.0	46.1	33.9	45.8	100.0	32.6	23.5
Marijuana	90.9	98.3	100.0	49.2	68.8	86.7	100.0	37.2
Other Illicit Drugs¹	89.5	93.7	65.1	100.0	67.6	82.8	50.6	100.0

¹Includes inhalants, cocaine, LSD or other psychedelics, speed or amphetamines, heroin, tranquilizers, barbiturates, design drugs (GHB, ecstasy [X], or Ketamine [Special K]), and steroids.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.4.1 Lifetime Combination Drug Use

We found that, among substance users, the use of more than one substance was common. Most of the students who had smoked cigarettes in their lifetime also had used alcohol (92%), whereas 53 percent had smoked marijuana and 40 percent had used other illicit drugs. Among those who had used alcohol, 74 percent also had smoked cigarettes, 46 percent had smoked marijuana, and 34 percent had used other illicit drugs. Students who had ever smoked marijuana were likely to have used cigarettes (91%) alcohol (98%), or other illicit drugs (49%). Finally, among students who had ever used illicit drugs other than marijuana, 90 percent had smoked cigarettes, 94 percent had used alcohol, and 65 percent had smoked marijuana.

2.4.2 Past Month Combination Drug Use

As was the case with lifetime use, if students had used one substance in the past month they were fairly likely to have used another one too. Students who had smoked cigarettes in the past month had relatively high levels of past month alcohol (81%), marijuana (44%), and other illicit drug (33%) use. Among those who had used alcohol, 46 percent had smoked cigarettes, 33 percent had smoked marijuana, and 24 percent had used other illicit drugs. Students who had smoked marijuana in the past month were likely also to have used cigarettes (69%), alcohol (87%), and other illicit drugs (37%). Among past month other illicit drug users, past month cigarette use was 68 percent, alcohol use was 83 percent, and marijuana use was 51 percent.

2.5 Peer Perceptions of Use and Perceived Risk of Use

2.5.1 Peer Perceptions

To determine the effect of peers' opinions on students' substance use, respondents were asked about the chances that they would be seen as "cool" if they used cigarettes, alcohol, or marijuana. **Exhibit 2.6** illustrates that the majority of students in the Northern region reported that there was "some, little, or no chance" that using these substances would influence their peers' perceptions of them. There was a notable difference in substance use between students who thought using substances would make them appear "cooler" and those who did not. Specifically, those who thought substance use would enhance their image were more likely to use alcohol, cigarettes, and marijuana. It is interesting to note that the association between peer opinions and substance use was not specific to a given substance. For example, students who reported that they would be seen as cool if they drank alcohol were more likely not only to drink alcohol, but also to smoke cigarettes and marijuana. This finding also applied to peer perceptions about alcohol and marijuana, and held true for both lifetime and past month substance use (where comparisons were possible).

Exhibit 2.6 Prevalence of Lifetime and Past Month Use of Cigarettes, Alcohol, and Marijuana Among Michigan Public School Students in the Northern Region, by Peer Perception of Use and the Perceived Risk of Use: 2000/2001

	Lifetime Use				Past Month Use		
	N	Cigarettes	Alcohol	Marijuana	Cigarettes	Alcohol	Marijuana
What are the chances you would be seen as cool if you:							
Smoked cigarettes							
very or pretty good chance	73	74.9	80.0	+	53.5	57.9	+
some, little, or no chance	951	47.6	59.8	26.9	17.9	33.7	11.1
Drank alcohol regularly ¹							
very or pretty good chance	126	71.9	82.4	49.8	39.3	50.6	+
some, little, or no chance	896	45.2	57.4	24.4	16.9	32.5	10.8
Smoked marijuana							
very or pretty good chance	108	69.5	81.8	54.8	39.8	55.2	+
some, little, or no chance	914	46.7	58.3	24.7	17.7	32.6	11.0
How much do you think people risk harming themselves (physically or in other ways) if they:							
Smoke cigarettes							
great risk	660	44.2	55.8	25.0	13.1	29.6	9.8
moderate risk	235	56.8	72.2	35.4	32.0	45.4	17.4
slight or no risk	101	66.6	68.3	+	37.8	49.1	+
Drink alcohol regularly ²							
great risk	390	35.3	44.4	21.7	13.4	21.2	+
moderate risk	313	49.9	61.1	25.4	18.9	32.3	+
slight or no risk	293	64.3	79.3	39.1	29.8	54.3	21.4
Smoke marijuana regularly							
great risk	725	36.2	49.1	13.6	11.1	22.9	+
moderate risk	153	78.9	88.1	57.6	39.7	62.0	24.9
slight or no risk	114	74.5	82.5	66.0	41.1	62.0	48.8

+ Data suppressed due to low precision.

¹At least once or twice a month.

²One or two drinks nearly every day.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.5.2 Perceived Risk

Students were asked how much people risk harming themselves (physically or in other ways) if they smoke cigarettes, drink alcohol regularly, or smoke marijuana regularly. The findings are presented in **Exhibit 2.6**. In general, greater perceived risk was associated with less substance use. This finding applied to all substances. Again, the association was not substance-specific; greater perceived risk of any substance was related to less use of any other substance. Only a few exceptions to this pattern were observed; students who thought there was moderate risk associated with smoking marijuana regularly were slightly more likely to have used cigarettes and alcohol in their lifetime than were those who perceived slight or no risk. In addition, there was no difference among those who reported moderate versus slight or no risk associated with regular marijuana use in their past month use of alcohol.

2.6 Delinquent Behavior

Exhibit 2.7 shows the prevalence by gender, race/ethnicity, and grade of five delinquent behaviors: being drunk or high at school, being suspended from school, stealing or attempting to steal a motor vehicle, selling illegal drugs, and having been arrested. Please note that estimates for many demographic subgroups are unavailable due to the small number of students reporting some of these behaviors.

Drunk or High at School. Overall, 15 percent of public school students in the Northern region reported having been drunk or high at school in the year prior to the survey. Males were more likely to have been drunk or high at school than females (19% vs. 11%). This behavior also was somewhat more prevalent among sophomores (26%) than among seniors (22%).

Suspended from School. Approximately 12 percent of students in the Northern region reported having been suspended from school in the year prior to the survey. The prevalence of school suspension was higher among males than females (17% vs. 7%).

Sold or Tried to Steal a Motor Vehicle. Very few students reported actual or attempted theft of a vehicle. As a result, no reliable prevalence estimates are available.

Sold Illegal Drugs. Overall, 5 percent of students in the Northern region reported that they sold illegal drugs in the year prior to the survey.

Been Arrested. Estimates for the overall prevalence of arrest, as well as estimates for demographic subgroups were suppressed because of the small number of students reporting the behavior.

**Exhibit 2.7 Prevalence of Delinquent Behavior in the Past Year Among Public School Students in the Northern Region:
2000/2001**

	Gender		Race/Ethnicity			Grade				Total
	Male	Female	Caucasian	African American	Other Races ¹	6	8	10	12	
Drunk or high at school	19.0	10.5	14.1	+	+	+	+	26.2	22.1	14.6
Suspended from school	17.0	6.7	11.3	+	+	+	14.6	+	+	11.9
Stole or tried to steal a motor vehicle	+	+	+	+	+	+	+	+	+	+
Sold illegal drugs	+	+	4.9	+	+	+	+	+	+	5.0
Been arrested	+	+	+	+	+	+	+	+	+	+

+ Estimate suppressed because of low precision.

¹Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.7 Summary

The most commonly used substances among public school students in the Northern region were alcohol, cigarettes, and marijuana. The majority (61%) had used alcohol in their lifetime, and more than one-third had used it in the month before the survey. Recent tobacco use was reported by 23 percent of students and recent marijuana use by 13 percent. Additionally, over 15 percent of students reported having used inhalants.

In the Northern region, males generally were more likely than females to report lifetime and recent use of alcohol, tobacco, and illicit drugs. Another striking demographic factor associated with prevalence of use was a student's grade in school. The prevalence of substance use generally increased as students' grade in school increased.

When compared to students across the state, students in the Northern region reported somewhat higher levels of alcohol use, and similar levels of tobacco and illicit drug use.

Among students who used substances, multiple substance use was fairly common. This was true for both lifetime and past month use.

Most students reported that using cigarettes, alcohol, or marijuana was unlikely to make them appear "cooler" to their peers. Those who did think substance use would enhance their image were more likely to use substances. It is notable that the association between peer opinions and substance use was not specific to a given substance; instead, students who reported that they would be seen as cool if they used one substance were more likely to report use of other substances too.

Moving beyond substance use, the prevalence of some delinquent behaviors in the past year also was assessed. Approximately 15 percent of students in the Northern region reported having been drunk or high at school, 12 percent reported having been suspended from school, and 5 percent reported having sold illegal drugs.

Overall, the data presented in this chapter provide basic prevalence information about alcohol and other drug use and delinquent behaviors for public school students in the Northern region of Michigan and offer insights into the groups most likely to experience substance use problems. When considering the information in this chapter, the limitations should be kept in mind. As noted previously, information for some demographic subgroups is unavailable due to low precision in the data or low prevalence of the behavior among those groups. In addition, the results are based on students' self-reports, and may not reflect their substance use with complete accuracy. Another important consideration involves the implications of any data collected in a school setting; students problematically involved with substance use may be less likely to attend school, and as a result considerable caution should be used when extrapolating the results to the entire adolescent population in the Northern region of Michigan.

3. RISK AND PROTECTIVE FACTORS FOR ADOLESCENT HEALTH BEHAVIORS AMONG MICHIGAN PUBLIC SCHOOL STUDENTS IN THE NORTHERN REGION

3.1 Background

The risk and protective factor framework has assumed a prominent role in substance abuse prevention research and practice over the past two decades. In 1979, Dr.'s J. David Hawkins and Richard F. Catalano, of the Social Development Research Group (SDRG), began developing the Social Development Strategy which has identified a set of risk and protective factors that influence behaviors.

Risk factors are characteristics of individuals or their environment that, when present, increase the likelihood that individuals will develop a disorder (e.g., use drugs) (Garmezy, 1983). Protective factors are characteristics that may reduce one's susceptibility to risk or prevent the initial occurrence of a risk factor (Coie et al., 1993). SDRG research has shown that certain conditions in a child's community, school, family and peer environments, as well as physiological and personality traits of the child, are common risk factors for problems such as drug abuse, delinquency, teenage pregnancy, and school failure. Because risk factors are precursors to substance abuse behaviors, reducing risk factors or protecting against them can prevent the occurrence of such behaviors. The Social Development Strategy emphasizes two key protective factors, including (1) bonding to prosocial family, school and peers, and (2) clear standards or norms for behavior. Three processes promote these protective factors: (1) opportunities for involvement in productive prosocial roles, (2) skills to be successfully involved in these roles, and (3) consistent systems of recognition and reinforcement for prosocial involvement. These factors protect against the development of conduct problems, school misbehavior, truancy, and drug abuse. Therefore, risk-focused approaches to substance abuse prevention seek to reduce risk factors for substance abuse and enhance protective factors.

The risk and protective factors identified above are found at multiple levels, including the individual, the family, the peer group, the school, and the community (Hawkins, Catalano, & Miller, 1992; Kandel, Simcha-Fagan, & Davies, 1986; Newcomb & Felix-Ortiz, 1992). Persons exposed to multiple risk factors, and across multiple levels, are more likely to engage in substance use than those with fewer risk factors. In addition, as mentioned above, many undesirable behavioral outcomes, such as substance use, delinquency, teen pregnancy, and school failure, share common risk factors. Some risk factors, such as demographic characteristics, cannot be changed, but can help to identify high-risk groups. Identification of specific populations in which risk factors are high and protective factors are low allows identification of prevention needs and facilitates targeting programming toward the reduction of risk factors and the enhancement of protective factors (Hawkins, Arthur, & Catalano, 1997). Risk and protective factors which were asked about on the survey (see appendix) are as follows.

Community Factors:

- ! **Low neighborhood attachment** (Items 95, 97,107)
- ! **Community disorganization** (Items 99[a-d], 105)
- ! **Transitions and mobility** (Items 101, 104, 106, 108,100)
- ! **Laws and norms favorable toward drug use** (Items 86, 88, 90, 93[a-c], 94[a-d])
- ! **Perceived availability of drugs and handguns** (Items 84, 85, 87, 89, 91)
- ! **Opportunities for conventional involvement** (Items 103[a-e])
- ! **Opportunities for positive interaction** (Item 98)
- ! **Rewards for conventional involvement** (Items 96, 102, 109)

School Factors:

- ! **Academic failure** (Items 13, 23)
- ! **Little commitment to school** (Items 25, 26, 27, 28[a-c])
- ! **School absenteeism** (Items 14[a-c])
- ! **Opportunities for positive involvement** (Items 15, 16, 18, 19, 25)
- ! **Rewards for conventional involvement** (Items 17, 20, 21, 22)

Family Factors:

- ! **Poor family management** (Items 111, 112, 113, 115, 124, 125)
- ! **Poor Discipline** (Items 114, 116, 117)
- ! **Parental attitudes favorable toward drug use** (Items 110[a-c])
- ! **Parental attitudes favorable toward antisocial behavior** (Items 110[d-f])
- ! **Attachment** (Items 120, 121)
- ! **Opportunities for positive involvement** (Items 119, 122, 123)
- ! **Rewards for conventional involvement** (Items 118, 126)

Peer-Individual Factors:

- ! **Rebelliousness** (Items 32, 35, 47)
- ! **Early initiation of substance use** (Items 30[a-d])
- ! **Early initiation of problem behavior** (Items 30[e-i])
- ! **Impulsiveness** (Items 48, 49, 50, 51)
- ! **Antisocial behavior** (Items 40[a-h])
- ! **Attitudes favorable toward antisocial behavior** (Items 31[a-e])
- ! **Attitudes favorable toward drug use** (Items 31[f-i])
- ! **Perceived risks of drug use** (Items 52[a-d])
- ! **Interaction with antisocial peers** (Items 29[e-k])
- ! **Friends' use of drugs** (Items 29[a-d])
- ! **Sensation seeking** (Items 37[a-c])
- ! **Rewards for antisocial involvement** (Items 41[a-d])
- ! **Social skills** (Items 42, 43, 44, 45)
- ! **Belief in the moral order** (Items 33, 34, 36, 46)

3.2 Regional Findings

3.2.1 Attitudes Favorable Toward Drug Use

Nearly all public school students in the Northern region reported that they thought it was very wrong or wrong for someone their age to take a handgun to school (**Exhibit 3.1**). Most reported that it was very wrong or wrong for someone their age to use illegal drugs (94%), attack someone (90%), steal anything worth more than \$5 (88%), smoke marijuana (80%), cut school (72%), smoke cigarettes (69%), drink alcohol regularly (66%), or pick a fight with someone (63%). Some students, however, some students reported that it was not wrong at all or only a little bit wrong for someone their age to engage in such activities.

Exhibit 3.1 Students' Attitudes About Substance Use and Other Behaviors Among Public School Students in the Northern Region: 2000/2001

	Percent			
	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
How wrong do you think it is for someone your age to:				
Smoke cigarettes?	46.2	22.6	17.4	13.7
Drink alcohol regularly?	44.6	20.9	23.3	11.2
Smoke marijuana?	62.9	17.1	12.1	7.9
Use other illegal drugs?	83.7	10.0	4.3	+
Steal anything worth more than \$5?	52.1	36.1	10.3	+
Pick a fight with someone?	25.6	37.7	29.3	7.5
Cut school?	40.9	31.5	21.6	6.1
Take a handgun to school?	90.6	8.1	+	+
Attack someone to seriously hurt them?	66.0	23.8	7.9	+

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey

Students also were asked how their parents felt about a subset of these behaviors.

Exhibit 3.2 shows that most students reported that their parents overwhelmingly thought each of these behaviors was wrong or very wrong. Nearly all students reported that their parents felt it was very wrong or wrong for them to steal anything worth more than \$5 or smoke marijuana, and most reported that their parents felt it was very wrong or wrong for them to smoke cigarettes (89%), pick a fight with someone (89%), or drink alcohol (85%).

3.2.2 Perceived Availability of Drugs

Students were asked how easy it would be for them to get alcohol, tobacco, and other drugs if they wanted to get some. **Exhibit 3.3** shows that only a minority of public school students in the Northern region thought getting marijuana or other illegal drugs would be very easy or sort of easy. Cigarettes and alcohol, however, were thought to be easier to obtain. About 63 percent of students thought it would be very easy or sort of easy for them to get cigarettes, and 54 percent thought it would be very easy or sort of easy to get alcohol.

Students also were asked about the likelihood of an adolescent in their neighborhood getting caught by the police for using various substances. About 73 percent of Northern region students believed it was unlikely that an adolescent in their neighborhood would get caught if they

Exhibit 3.2 Parental Attitudes Towards Substance Use and Other Behaviors Among School Students in the Northern Region: 2000/2001

	Percent			
	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
How wrong do your parents feel it would be for you to:				
Smoke cigarettes?	71.4	17.8	6.3	4.5
Drink alcohol?	65.1	20.2	12.0	+
Smoke marijuana?	86.4	8.6	+	+
Steal anything worth more than \$5?	85.6	11.9	+	+
Pick a fight with someone?	60.3	28.9	9.6	+

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

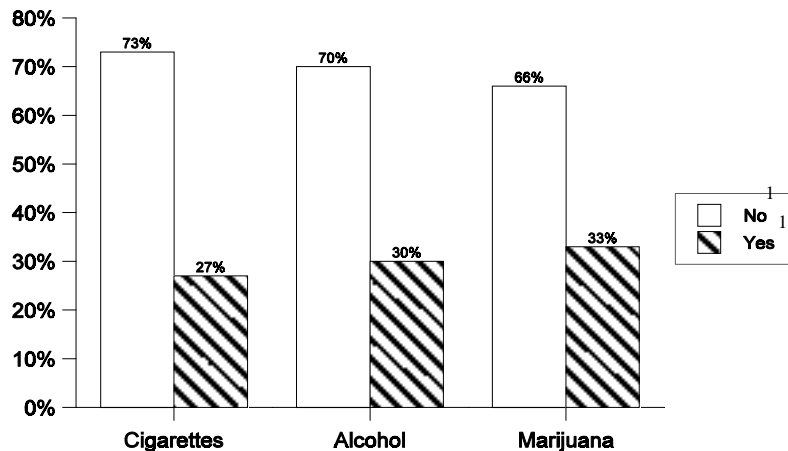
Exhibit 3.3 Perceived Ease of Getting Tobacco, Alcohol, and Illicit Drugs Among Public School Students in the Northern Region: 2000/2001

	Percent			
	Very Hard	Sort of Hard	Sort of Easy	Very Easy
If you wanted to get _____, how easy would it be for you to get some?				
Beer, wine, or hard liquor	27.9	18.6	28.2	25.3
Cigarettes	25.8	11.7	16.4	46.2
Marijuana	38.9	14.2	17.4	29.5
Other illegal drugs	60.8	21.2	14.2	3.9

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

smoked cigarettes. Students also thought it was unlikely that an adolescent would get caught for drinking alcohol (70%) or smoking marijuana (67%) (**Exhibit 3.4**).

Exhibit 3.4 Perceived Likelihood of Getting Caught by the Police for Substance Use Among Public School Students in the Northern Region: 2000/2001



¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

3.2.3 Perceived Risks of Drug Use

Even though students thought it was fairly easy to get substances and unlikely that they would get caught for using alcohol, tobacco, or other drugs, many also felt that substance use was dangerous. **Exhibit 3.5** indicates that more than half felt that people are at great risk for harming themselves physically or in other ways if they smoke marijuana regularly (67%) or smoke one or more packs of cigarettes per day (65%). Only 36 percent thought drinking alcohol nearly every day was a great risk, and only 32 percent thought there was great risk associated with smoking marijuana once or twice.

3.2.4 Friends' Use of Drugs

Students were asked to think about their four best friends (the friends they felt closest to) and indicate how many had used alcohol, tobacco, or other drugs in the past year (**Exhibit 3.6**). A majority of students reported that none of their best or closest friends used marijuana or other illegal drugs in the past year. Approximately 60 percent had 1 or more best or close friend who tried alcohol when their parents didn't know about it, and 53 percent had best or close friends who smoked cigarettes.

Exhibit 3.5 Perceived Risks of Substance Use Among Public School Students in the Northern Region: 2000/2001

	Percent			
	No Risk	Slight Risk	Moderate Risk	Great Risk
How much do you think people risk harming themselves (physically or in other ways) if they:				
Smoke one or more packs of cigarettes per day?	3.1	6.7	25.0	65.2
Try marijuana once or twice?	17.5	26.4	24.3	31.9
Smoke marijuana regularly?	3.7	9.6	19.4	67.4
Take one or two drinks of an alcoholic beverage nearly every day?	10.4	21.3	32.3	36.0

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.6 Friends' Substance Use Among Public School Students in the Northern Region: 2000/2001

	Percent				
	None	1	2	3	4
Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have:					
Smoked cigarettes?	47.4	14.3	13.2	8.1	16.9
Tried alcohol when parents didn't know about it?	40.2	11.7	9.9	11.6	26.8
Used marijuana?	60.4	13.4	8.3	6.0	11.9
Used LSD, cocaine, amphetamines, or other illegal drugs?	87.4	6.3	+	+	+

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

3.2.5 Opportunities and Rewards for Positive School, Community, and Family Involvement

Students also were asked about opportunities and rewards for positive school, community, and family involvement. **Exhibit 3.7** shows that most students reported that there are a lot of chances for students to get involved in school sports, clubs, and other activities outside of class (90%), they have lots of chances to be part of class discussions/activities (85%), teachers ask them to work on school projects (80%), there are lots of chances for students to talk with a teacher one-on-one (77%), teachers tell them when they are doing a good job (75%), they have lots of chances to help decide things like class activities and rules (59%), and teachers praise them when they work hard in school (52%). However, only 43 percent reported that the school lets their parents know when they have done something well.

Exhibit 3.7 Opportunities and Rewards for School Involvement Among Public School Students in the Northern Region: 2000/2001

	Percent	
	No ¹	Yes ¹
In my school, students have lots of chances to help decide things like class activities and rules.	40.9	59.1
Teachers ask me to work on classroom projects.	19.7	80.3
My teacher(s) notices when I am doing a good job and lets me know about it.	25.0	75.0
There are a lot of chances for students in my school to get involved in sports, clubs, and other schools activities outside of class.	9.7	90.3
There are lots of chances for students in my school to talk with a teacher one-on-one.	23.3	76.7
The school lets my parents know when I have done something well.	57.1	42.9
My teachers praise me when I work hard in school.	48.4	51.6
I have lots of chances to be part of class discussions/activities.	14.8	85.2

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Students also were asked about the kinds of activities available in their community for people their age. **Exhibit 3.8** shows that

- ! students reported that the most common community activity is sports teams (95%), followed by 4-H clubs (88%), scouting (75%), service clubs (65%), and boys and girls clubs (62%);
- ! 64 percent of students said that there are people in their neighborhood who encourage them to do their best, 59 percent said there are people in their neighborhood who are proud of them when they do something well, and 47 percent said there are a lot of adults in their neighborhood they could talk to about something important; and
- ! 32 percent of students said their neighbors notice when they do a good job and let them know about it.

Exhibit 3.8 Community Involvement and Interaction Among Public School Students in the Northern Region: 2000/2001

	Percent	
	No	Yes
Which of the following activities for people your age are available in your community?		
Sports teams	4.9	95.1
Scouting	25.4	74.6
Boys and girls clubs	37.8	62.2
4-H clubs	12.0	88.1
Service clubs	35.3	64.7
In my neighborhood, or the area around where I live:¹		
There are a lot of adults I could talk to about something important.	53.5	46.5
There are people who are proud of me when I do something well.	40.7	59.3
There are people who encourage me to do my best.	36.1	63.9
My neighbors notice when I am doing a good job and let me know about it.¹	68.2	31.8

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Approximately 43 percent of students reported that their parents notice all the time when they are doing a good job and let them know about it, and 31 percent reported that their parents do so often. Thirty-eight percent of students also said that their parents tell them all the time that they are proud of them for something they have done, and another 34 percent said that their parents do so often (**Exhibit 3.9**). **Exhibit 3.10** shows that 82 percent of students said they could ask their parents for help with a personal problem, 81 percent reported that their parents give them lots of chances to do fun things with them, and 72 percent are involved in family decisions affecting them.

Exhibit 3.9 Rewards for Family Involvement Among Public School Students in the Northern Region: 2000/2001

	Percent			
	Never or almost never	Sometimes	Often	All the time
My parents notice when I am doing a good job and let me know about it.	4.5	22.2	30.8	42.5
How often do your parents tell you that they are proud of you for something you have done?	5.3	23.0	34.2	37.5

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.10 Opportunities for Family Involvement Among Public School Students in the Northern Region: 2000/2001

	Percent	
	No ¹	Yes ¹
My parents ask me what I think before most family decisions affecting me are made.	28.3	71.8
If I had a personal problem, I could ask my mom or dad for help.	18.0	82.0
My parents give me lots of chances to do fun things with them.	19.5	80.5

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

3.2.6 Regional and Statewide Rankings of Risk and Protective Factors

Exhibit 3.11 shows rankings of ten risk factors and nine protective factors for the Northern region, as well as the percentage of students who are considered “at risk” or “resilient” for each. The most common risk factor for students in the Northern region was perceived availability of drugs and handguns, on which 44 percent of students were at risk. About one quarter of Northern region students were at risk on little commitment to school, sensation seeking, and poor family discipline. Approximately one in five was at risk on academic failure, friends’ substance use, laws and norms favorable toward substance use, and rebelliousness. Other relatively common risk factors were perceived risks of substance use (15%) and attitudes favorable toward substance use (15%). An examination of protective factors shows that at least eight in ten Northern region students were resilient on opportunities for positive school involvement, family attachment, opportunities for conventional community involvement, and opportunities for conventional family involvement. About three quarters were resilient on belief in the moral order and social skills. Other protective factors for at least half of Northern region’s students included rewards for conventional involvement with family (68%), school (58%), and community (50%).

Statewide rankings and percentages are presented in **Exhibit 3.12**. Across the state, the most common risk factor was the perceived availability of drugs and handguns. More than four in ten students were at risk on this factor. Little commitment to school, poor family discipline, and sensation seeking were risk factors for about a quarter of students statewide. About one in five students were at risk on the factors academic failure, rebelliousness, friend’s substance use, laws and norms favorable toward substance use, and low neighborhood attachment. The tenth most common risk factor for students across the state was perceived risks of substance use (14%). In terms of protective factors, many students across the state were resilient on opportunities for positive involvement at school (83%), attachment to their family (79%), and opportunities for positive family involvement in their family (78%). About three quarters were resilient on social skills, belief in the moral order, and opportunities of conventional involvement in the community. Two-thirds were resilient on rewards for conventional family involvement, and more than half on rewards for conventional community and school involvement.

Exhibit 3.11 Rank of Risk and Protective Factors Among Michigan Public School Students: 2000/2001

Northern Region					
Rank	Risk Factor	Percentage of Students at Risk	Rank	Protective Factor	Percentage of Students Resilient
1	Perceived availability of drugs and handguns	43.8%	1	Opportunities for positive involvement (school)	86.9
2	Little commitment to school	27.0	2	Attachment (family)	83.3
3	Sensation seeking	26.0	3	Opportunities for conventional involvement (community)	81.5
4	Poor discipline (family)	25.9	4	Opportunities for conventional involvement (family)	80.6
5	Academic failure	20.7	5	Belief in moral order	74.3
6	Friends' substance use	20.3	6	Social skills	72.9
7	Laws & norms favorable toward substance use	19.2	7	Rewards for conventional involvement (family)	68.0
8	Rebelliousness	18.9	8	Rewards for conventional involvement (school)	58.3
9	Perceived risks of substance use	15.2	9	Rewards for conventional involvement (community)	50.2
10	Attitudes favorable toward substance use	15.1			

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.12 Rank of Risk and Protective Factors Among Michigan Public School Students: 2000/2001

Statewide					
Rank	Risk Factor	Percentage of Students at Risk	Rank	Protective Factor	Percentage of Students Resilient
1	Perceived availability of drugs & handguns	42.5%	1	Opportunities for positive involvement (school)	82.5%
2	Little commitment to school	26.6	2	Attachment (family)	79.3
3	Poor discipline (family)	25.9	3	Opportunities for positive involvement (family)	77.7
4	Sensation seeking	22.9	4	Social skills	74.4
5	Academic failure	20.7	5	Belief in the moral order	73.0
6	Rebelliousness	19.3	6	Opportunities for conventional involvement (community)	72.1
7	Friends' substance use	18.7	7	Rewards for conventional involvement (family)	67.0
8	Laws and norms favorable toward substance use	17.6	8	Rewards for conventional involvement (community)	53.5
9	Low neighborhood attachment	16.7	9	Rewards for conventional involvement (school)	52.7
10	Perceived risks of substance use	13.7			

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

4. SUMMARY AND IMPLICATIONS

Findings from this study have implications for substance abuse prevention policies, planning, and program development in the Northern region of Michigan. This study was designed to identify adolescent populations in greatest need of substance abuse prevention so that prevention programs and services can target risk and protective factors for substance abuse. Even though some of the risk factors examined in this study (e.g., grade in school, gender, and race/ethnicity) are impossible to alter, they do serve to identify those students with elevated risk for substance use. Other risk factors can be modified. Modifiable risk factors include academic performance, antisocial behaviors, student perceptions, and availability of alcohol, tobacco, and other drugs. The same is true for protective factors; some are amenable to change and others can serve as markers of groups most at risk. Highlights of the findings of this study and implications regarding programming are provided in the following sections.

4.1 Summary

4.1.1 Substance Use

When compared to students across the state, students in the Northern region reported somewhat higher levels of alcohol use, and similar levels of tobacco and illicit drug use.

- ! More than one third of public school students in the Northern region reported recent alcohol use.
- ! Almost one quarter of students reported recent tobacco use.
- ! Nearly one in five students reported recent marijuana use.

Substance use varied across some demographic characteristics.

- ! In most cases, males were more likely than females to have used substances in their lifetime and in the past month.
- ! Rates of substance use generally increased as students' grade in school increased. For example, prevalence of past month tobacco use was 18 percent among 8th graders, 28 percent among 10th graders, and 45 percent among 12th graders.

4.1.2 Delinquent Behaviors

Males were more likely than females to have been drunk or high at school, and to have been suspended from school.

- ! Fifteen percent of students in the Northern region reported having been drunk or high at school in the year prior to the survey.
- ! More than one in ten students had been suspended, and suspension was more common among males than females.
- ! Theft or attempted theft of a motor vehicle was rare.
- ! Five percent of students had sold illegal drugs.
- ! Very few students had been arrested in the past year.

4.1.3 Risk and Protective Factors

One way to reduce students' substance use and delinquent behavior is to identify factors that make students more or less likely to participate in such behaviors and then reduce risk factors while increasing protective factors. National research has identified a set of risk and protective factors that have been shown to be related to these undesirable behaviors (Hawkins et al., 1992, 1997). The more risk factors a student has, the more likely that student is to have used substances in the past month. The more protective factors present, the less likely that student is to have used substances in the past month.

The following findings report on the status of risk and protective factors among students in the Northern region.

- ! **Students' Attitudes Toward Drug Use and Antisocial Behavior.** The majority of students reported that it was "very wrong" or "wrong" for someone their age to engage in substance use and delinquent behavior. For example, over 90 percent thought it was very wrong or wrong for someone their age to take a handgun to school or use illegal drugs other than marijuana.
- ! **Parents' Attitudes Toward Drug Use and Antisocial Behavior.** Students overwhelmingly reported that their parents thought substance use and delinquent behavior were wrong or very wrong for adolescents.
- ! **Perceived Availability of Drugs.** Although students reported that illicit drugs other than marijuana would be difficult to obtain, they thought it would be easier to get marijuana, alcohol, or cigarettes. Students also

reported that it was unlikely that an adolescent in their neighborhood would get caught by the police if they smoked cigarettes or marijuana, or drank alcohol.

- ! **Perceived Risks of Drug Use.** Perceived risk of physical or other harm was fairly high for heavy smoking and regular marijuana use. Fewer students, however, thought using alcohol regularly or smoking marijuana once or twice put them at great risk.
- ! **Friends' Use of Drugs.** A majority of students reported that none of their closest friends had used marijuana or other illegal drugs in the past year. More than half, however, indicated that at least one close friend had used cigarettes or had tried alcohol when their parents didn't know about it.
- ! **Opportunities and Rewards for Positive School Involvement.** Most students in the Northern region reported that there are a lot of opportunities to be involved and rewarded at school. In contrast, fewer than half said that the school notifies their parents when they have done something well.
- ! **Opportunities and Rewards for Positive Community Involvement.** Opportunities to participate in community activities such as sports, scouting, and service clubs were commonly reported by Northern region students. More than half of students reported that their neighbors encourage them and are proud of them when they do something well, but it was less common to have neighborhood adults to confide in, or neighbors that notice and are proud when they do a good job.
- ! **Opportunities and Rewards for Positive Family Involvement.** More than seven in ten students in the Northern region reported that their parents always or often notice when they are doing a good job and let them know about it, and that their parents always or often tell them that they are proud of them for something they have done. Most students indicated that they could ask their parents for help with a personal problem, that their parents give them the opportunity to do fun things with them, and that they are involved in family decisions affecting them.

4.2 Limitations of the Data

It is important to note again the limitations of the data gathered in the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey. The primary limitation is the exclusive focus on adolescents in school. With such a focus, adolescent subpopulations with concentrated numbers of problem users may be missed. These subpopulations include school dropouts, homeless and runaway students, and students who have been incarcerated or institutionalized—all of whom are likely to be undercounted by school surveys.

The subpopulation of most concern not captured by school-based surveys is school dropouts. There has been some controversy surrounding the belief that dropouts have the greatest drug problems, but most of the research to date has shown that dropouts are more likely to be substance users than those who remain in school. Mensch and Kandel (1988) found that dropouts were more likely than graduates to use cigarettes and illicit drugs. An unpublished analysis of the adolescent subsample of the 1991 National Household Survey on Drug Abuse (NHSDA) also showed that 16- and 17-year-old dropouts were significantly more likely than those currently enrolled to use alcohol, cigarettes, marijuana, cocaine, and any illicit drugs (including marijuana and cocaine). Published studies have also shown that drug use often precedes dropping out of school (Friedman, Glickman, & Utada, 1985; Mensch & Kandel, 1988), but drug use has not been proven to be a definitive cause of dropping out of school. Nevertheless, it is reasonable to assume that some of the problem users who are *at risk* for dropping out but have not yet done so will be captured in this survey; results, however, can only be generalized to the population of adolescents who are attending school.

The second important limitation is that the questionnaire measures self-reported behavior. Caution should be exercised in interpreting these data because of respondents' tendencies to underreport undesirable behaviors and to have difficulty remembering complicated information, such as the age at which they first used a substance (Bailey, Flewelling, & Rachal, 1992).

Finally, reliable estimates for some demographic subgroups consistently were unavailable for the Northern region because the groups were small relative to the entire student population or because the use or behavior in question was very low in these groups. Although data from these groups were used to calculate other estimates, such as regional totals and gender estimates, it is not possible to compare them with other demographic subgroups.

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APPENDIX A

Data Collection Materials

